

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT <i>ENGINEERING and COMPLIANCE</i> APPLICATION PROCESSING AND CALCULATIONS	PAGES 4	PAGE 1
	APPL. NO. Below	DATE 8/24/2007
	PROCESSED BY T. Iwata	CHECKED BY

NASA/JPL
4800 Oak Grove Dr.
Pasadena, CA 91109
Id no.: 11887

EQUIPMENT DESCRIPTION:

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
Process 5: FUEL STORAGE AND DISPENSING					
FUEL DISPENSING NOZZLE, <u>BELLOWS-LESS, PHASE II</u> <u>CARB ENHANCED VAPOR</u> <u>RECOVERY SYSTEM, HEALY</u> <u>PHASE II EVR SYSTEM</u> <u>INCLUDING VEEDER-ROOT</u> <u>ISD SYSTEM, BALANCE</u> <u>RETRACTOR PHASE II</u> <u>CONTROL, GASOLINE</u> A/N 471739	D68				J110.1, J121.1, J373.1, J373.2, J373.3, J373.4
STORAGE TANK, UNDERGROUND, METHANOL COMPATIBLE, GASOLINE, CARB ENHANCED VAPOR RECOVERY PHASE I, WITH VAPOR RECOVERY SYSTEM, 1000 GALS A/N 471739	D69				C1.7, J109.1, J373.2, J373.3, J373.4, K67.1

A/N 471741: Title V permit revision application

BACKGROUND:

NASA/JPL submitted application no. 471739 to update their gasoline fuel dispensing system (device nos. D68 and D69) with new Healy Phase II Enhanced Vapor Recovery (EVR) components. The new CARB-certified EVR components consists of a new nozzle, clean air separator, coaxial hoses and a vacuum pump. The Phase II vapor recovery system is designed to collect gasoline vapors that would otherwise escape into the atmosphere as vehicles are being refueled and meets CARB Enhanced Vapor Recovery Phase II requirements. The current throughput limit will remain at 18,750 gals/month.

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NASA/JPL is a Title V facility. A Title V renewal permit was issued to this facility on October 1, 2006. NASA/JPL has proposed to revise their Title V renewal permit (with application no. 471741) by modifying a fuel dispensing and storage system operating under device nos. D68 and D69 (application no. 471739). This permit revision is considered as a “de minimis significant permit revision” to the Title V renewal permit, as described in the Regulation XXX evaluation.

PROCESS DESCRIPTION:

The fuel dispensing and storage systems are used strictly to fuel on-site vehicles with gasoline. The systems are limited to dispensing no more than 18,750 gallons of gasoline per month. The equipment is used to fuel approximately two dozen vehicles.

EMISSIONS CALCULATIONS:

Hydrocarbon and benzene emissions from storage tank filling and motor vehicle refueling operations are estimated by using appropriate emission factors developed by the District. Monthly fuel throughput limit is 18,750 gals/month.

Emission Factors and Control Efficiencies for Underground Tanks

Process Type	Uncontrolled ROG emissions (lb/1000 gals)	Benzene Content (wt. %)	Control Efficiency (%)
Loading	8.4	0.3 vapor	95
Breathing	0.1	0.3 vapor	75
Refueling	8.3	0.3 vapor	96
Spillage	0.42	1.0 liquid	0

ROG, uncontrolled - EF (lb ROG/1000 gals) x Throughput (1000 gal/month)

ROG, controlled = ROG, uncontrolled x Control efficiency

Benzene, uncontrolled = ROG, uncontrolled x Benzene content

Benzene, controlled = ROG, controlled x Benzene content

Emissions Summary

	ROG (R1)	ROG (R2)	Benzene (R1)	Benzene (R2)
Monthly (lb/mon)	322.8	22.4	1.02	0.12
30-day ave (lb/day)	10.76	0.75	0.03	0
Hourly (lb/hr)	0.45	0.03	0	0

RULE ANALYSIS:

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RULE 212: Public notification is not necessary since (1) there will not be an emission increase exceeding the threshold of (g), (2) the facility is not located within a 1,000 feet of a school and (3) there will not be a cancer risk of one in a million.

RULE 401: Visible emissions are not expected with the proper operation of this equipment.

RULE 402: Operation of this equipment is not expected to create a nuisance.

RULE 461: The storage tank is equipped with CARB-certified EVR Phase I vapor controls and are equipped with submerged fill tubes. The EVR Phase II dispensing nozzle is CARB-certified. The system will operate in compliance with the rule.

RULE 1170: To comply with this rule, the storage tank under device no. D69 will be designated as "Methanol Compatible". In the past, this tank was used to hold methanol.

REG. XIII

1303(a): Not applicable, there is not an emission increase.

1303(b)(1): Not applicable, there is not an emission increase.

1303(b)(2): Emission offsets are not required since there is not an emission increase.

1303(b)(4): The facility is expected to be in full compliance with all applicable rules and regulations of the District.

RULE 1401: Not applicable, there is not an increase in toxic air contaminants.

REGULATION XXX:

The proposed project is considered as a "de minimis significant permit revision" to the Title V permit issued to this facility. Rule 3000(b)(6) defines a "de minimis significant permit revision" as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAP) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lb/day)
HAP	30
VOC	30
NO _x	40
PM ₁₀	30

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SOx	60
CO	220

Rule 3003(j) specifies that a proposed permit for a Title V permit revision shall be submitted to EPA for review. To determine if a project qualifies for a “de minimis significant permit revision”, emission increases resulting from all permit revisions that are made after the issuance of the initial Title V permit shall be accumulated and compared to the above threshold levels. This proposed project is the 2nd permit revision to the Title V renewal permit issued to this facility on October 1, 2006. The following table summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued:

Revision	HAP	VOC	NOx*	PM10	SOx	CO
Previous Total	0	0	1	0	0	0
2 nd Permit Revision, modify Device nos. D68 and D69	0	0	0	0	0	0
Total	0	0	1	0	0	0
Maximum Daily	30	30	40*	30	60	220

* RECLAIM pollutant, not subject to emission accumulation requirements

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or HAPs.

RECOMMENDATION:

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “de minimis significant permit revision”, it is exempt from the public participation requirements under Rule 3006 (b). A proposed permit incorporating this permit revision will be submitted to the EPA for a 45-day review pursuant to Rule 3003(j). If the EPA does not raise any objections within the review period, a revised Title V permit will be issued to this facility.